

Working Toward Conscious Competence: The Power of Inquiry for Teachers and Learners

This is my valedictory CODA column. (There's another issue in this editorial cycle, but that CODA will be guest written.) For sixteen years I've composed some version of this column for *Voices from the Middle*. I started this gig in the year 2000 with Volume 8—we are now in Volume 23. That's fully half of my teaching career and over two-thirds of the life of *Voices*, my favorite professional and practitioner journal. I've worked with three different sets of editors and lots of other wonderful people. Thank you all! Now, I'm going to grab one last chance to improvise on the theme of inquiry—for teachers and students.

Inquiry Defined

Inquiry is defined in various ways. But as a term of art in cognitive science it is the *rigorous apprenticeship into disciplinary expertise and meaning-making*. It is learning how to solve problems and design solutions by using the stances and strategies of expert practitioners.

The Effectiveness of Inquiry Teaching

I must mention that John Hattie (2013), in his influential review of teaching treatments and techniques, rates inquiry as having a relatively low effect size. This is because he conflates inquiry as rigorous cognitive apprenticeship with other

kinds of “inquiry” such as open-ended student-discovery learning. This is a mistake.

There are many studies that demonstrate the case for inquiry as cognitive apprenticeship both in professional practice and in student learning. The gold standard is the study *Successful School Restructuring* conducted by Fred Newman and his colleagues at the University of Wisconsin (Newman & Wehlage, 1995; Newman & Associates, 1996). Involving 23 schools and more than 2300 students, learners were found to have significantly higher engagement and achievement on challenging tasks when they learned in an inquiry environment. Inquiry practices were shown to have more positive impact on student performance than any other factor, including prior achievement and background.

I've also made the data-based case (see, e.g. Smith & Wilhelm, 2002; 2006; Wilhelm, 2007) that inquiry is the most powerful teaching model for motivating learners and assisting them with learning. As Newman's studies would support, along with the seminal work of George Hillocks (1986), inquiry is also the best method for developing the profound procedural/strategic competences required by the Common Core and, indeed, all next-generation standards and assessments worldwide. Inquiry, as a teaching methodology but also as a stance of teacher reflection and research, is also how teachers grow in capacity.

The Power of Teacher Inquiry: Working Toward Conscious Competence

Teacher inquiry works toward conscious competence. Conscious competence doesn't mean that

every lesson runs like clockwork. It does mean that you pay attention to students and their learning. It does mean that when something works well, you have an idea why and how to keep doing it. When things don't go well, you have an idea why and a repertoire for addressing and improving the situation. Throughout this process, one builds a robust theory of teaching and learning and a wide and flexible repertoire of teaching techniques for enacting the principles of one's practice. This process is one of investigating and reflecting on one's teaching, trying out new ideas and framing experiments, and constantly building knowledge about students, about learning, and about teaching.

In National Writing Project Summer Institutes, our central project is creating teaching demonstrations that articulate and enact transferable principles of practice. We work toward conscious competence.

Inquiry as the Hallmark of Professional Practice

Understanding, in current cognitive science, is the capacity to justify what has been learned through evidentiary reasoning and to transfer this understanding in application to different situations. Understanding is conscious and justified competence.

Inquiry is the capacity to recognize and frame problems, find and generate relevant data, read and evaluate data, analyze and see patterns in data, interpret and come to data-driven conclusions, justify and represent what has been learned, share how to apply what is learned so it provides ways forward, solutions, and services to others. It is the process of reflecting and learning from experience, of outgrowing oneself, and improving one's capacities over time: in other words, inquiry is the process of understanding.

For teacher expertise, being an inquirer means that you are constantly learning from specific students and groups how best to teach them, as well finding that you are part of a community of practice, that you are continually developing your practical expertise over time.

Multiple Levels of Inquiry

In my mind, the most successful school will practice inquiry at multiple levels. Such a school will feature teachers

- collaboratively participating in creating meanings with students and learning from students how to teach them better;
- engaging in action research, trying new actions and interventions, creating conscious competence and principles of practice, always extending their repertoires; and
- operating as public intellectuals, reading research together, deprivatizing their practices, and working as thinking partners by sharing their instructional moves, student work, and action research.

Such a school will feature students

- collaboratively exploring inquiry topics with each other and with their teacher and other experts, working together to create knowledge and usable, revisable, extensible, and archival knowledge artifacts and social action projects;
- developing conscious competence with threshold concepts and procedures for learning, problem solving, and meaning making that can be developed and honed throughout a lifetime; and
- inquiring into their own reading and writing, learning about expert practice, monitoring their own progress, and sharing expertise with others through modeling and peer response.
- using assessment *as* learning: constantly reflecting on their work and analyzing their processes in order to improve them. These students will create daily deliverables that reveal what they know and can do, as well as their areas of productive struggle.

The Bottom Line!

Inquiry leads to deep understanding and use of concepts. If you aren't teaching and learning for

conscious competence and application, then why are you teaching and learning? Inquiry provides the additional benefits of fostering imagination, joy, and the pursuit of wisdom (Wilhelm & Novak, 2013). Inquiry is the most powerful way forward and must be part of our daily craft as reflective practitioners and professional knowledge-makers, as well as part of our work as collaborative fellow learners with students being apprenticed into the expert practices of readers, composers, and problem solvers of all kinds.

References

- Hattie, J. (2013). *Visible learning*. Thousand Oaks, CA: Corwin.
- Hillocks, G. (1986). *Research on written composition: New directions for teaching*. Urbana, IL: NCTE.
- Newman, F., & Wehlage, G. (1995). *Successful school restructuring: A report to the public and educators by the Center on Organization and Restructuring of Schools*. Madison, WI: Board of Regents of the University of Wisconsin System and Document service, Wisconsin Center for Education Research.
- Newman, F., & Associates, (1996). *Authentic achievement: Restructuring of schools for intellectual quality*. San Francisco, CA: Jossey-Bass.
- Smith, M., & Wilhelm, J. (2002). *Reading don't fix no Chevys*. Portsmouth, NH: Heinemann
- Smith, M., & Wilhelm, J. (2006). *Going with the flow*. Portsmouth, NH: Heinemann
- Wilhelm, J. (2007). *Engaging readers and writers with inquiry*. New York, NY: Scholastic.
- Wilhelm, J., & Novak, B. (2013). *Teaching literacy for love and wisdom*. New York, NY: